

*Monodelphis kunsii*. By Sydney Anderson

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*Monodelphis kunsii* Pine, 1975

*Monodelphis kunsii* Pine, 1975, p. 321. Type locality "La Granja, W bank of Rio Itonamas, 4 k N Magdalena, Provincia Itenez, Departamento Beni, Bolivia, below 200 m" (13°18'S, 64°09'W).

**CONTEXT AND CONTENT.** Order Marsupialia, Family Didelphidae, Genus *Monodelphis*, with at least 12 species (Pine, pers. comm.); subgenera not here recognized.

**DIAGNOSIS.** A small *Monodelphis* without mid-sagittal crest on braincase of skull and without enlarged canines; without dorsal stripes such as are present in *M. americana* or lateral reddening such as seen in *M. breviceaudata*; throat gland present, partly hidden in sparse fur; fur short, dorsally warm brown, ventrally with whitish areas, tail finely haired and bicolored, darker dorsally and buffy ventrally (Fig. 1); skull with relatively small and blunt rostrum, no postorbital thickening or processes (Figs. 2 and 3 show skull and jaws of the holotype; diagnosis adapted from original description; only two specimens are known). Small size seems to distinguish *M. kunsii* from all other species of *Monodelphis*; *M. sorex* of Rio Grande do Sul in southern Brazil and *M. fosteri* of central Argentina are based on immature animals that probably would be larger than *M. kunsii* as adults.

**GENERAL CHARACTERS.** Size small (measurements in mm of holotype and second known specimen, both adult males): total length, —, 113; length of tail, —, 42; length of hindfoot, —, 12; length of ear, —, 12; condylobasal length of skull, 23.2, —; basal length, 21.8, —; palatal length, 12.1, 10.9; zygomatic breadth, 12.0, —; interorbital constriction, 4.4, 4.4; width across nasals, 3.8, 3.2; length of longer nasal, 9.6, 8.6; width across canines, 3.7, 3.2; length of maxillary toothrow, 9.3, 8.2; length of molar series (M1-M4), 5.0, 4.6.

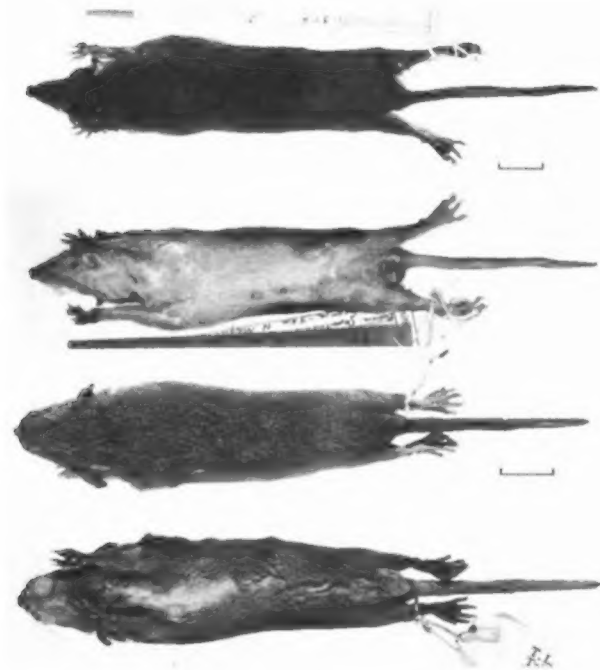


FIGURE 1. Photographs of skins of *Monodelphis kunsii* (top to bottom, dorsal and ventral views of type specimen, USNM no. 461348, and dorsal and ventral views of ANSP no. 18191). Scales represent 10 mm.

**DISTRIBUTION.** The species is known from only two locations, both in lowland Bolivia (Fig. 4). These locations are not far from Brazil to the north and Argentina to the south and so the species probably occurs in those countries as well. The second location is Rio Lipeo in the department of Tarija (at 22°41'S and 64°26'W, according to Paynter et al., 1975). The two localities are at less than 200 m and at 640 m elevation, respectively.

**FORM AND FUNCTION.** Most dorsal hairs are pale gray at the base and darker farther from the base. Dark gray changes to ochraceous somewhere in the distal half of the hair. Finally, the tip of the hair is blackish. These hairs are slender near the base, are thickest and stiffest in the ochraceous areas, and taper sharply within the black area to the pointed tip. Heavier and longer guard hairs that are blackish throughout their length are scattered among the other hairs. Guard hairs constitute fewer than 5% of all hairs on the dorsum and decrease in number on the sides; there are none on the venter. The length of hairs decreases from about 3 mm on the back to about 2 mm on the venter. Hairs on the head are also short. Black tips are not present ventrally and the paler ochraceous color is more evident.



FIGURE 2. Photographs of skull of the holotype of *Monodelphis kunsii* in dorsal, ventral, and lateral views. The scale represents 10 mm.



FIGURE 3. Photographs of the lower jaw of the holotype of *Monodelphis kunsii* in occlusal and lateral view. The scale represents 10 mm.

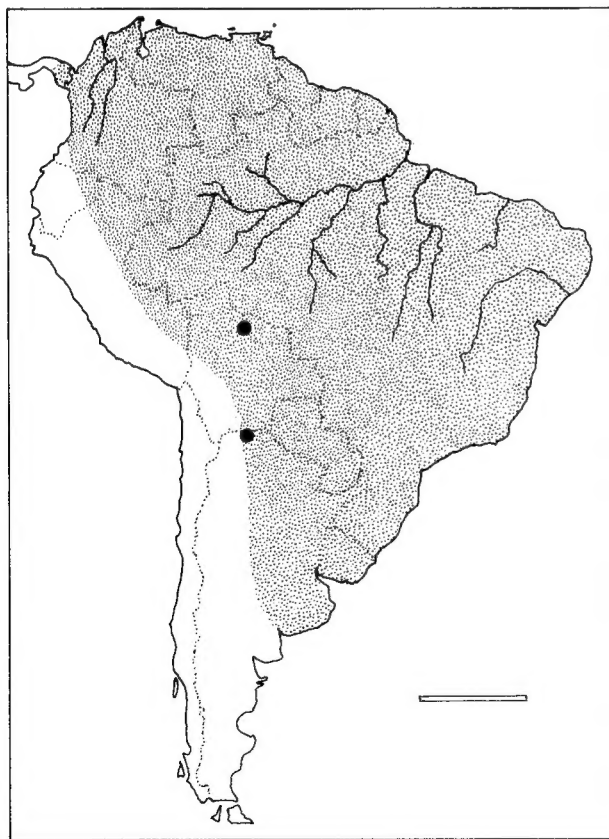


FIGURE 4. Map showing the distribution of the genus *Monodelphis* in South America and Panama, and the two locations of known occurrence of *Monodelphis kunsii* in Bolivia. Scale represents 1,000 km.

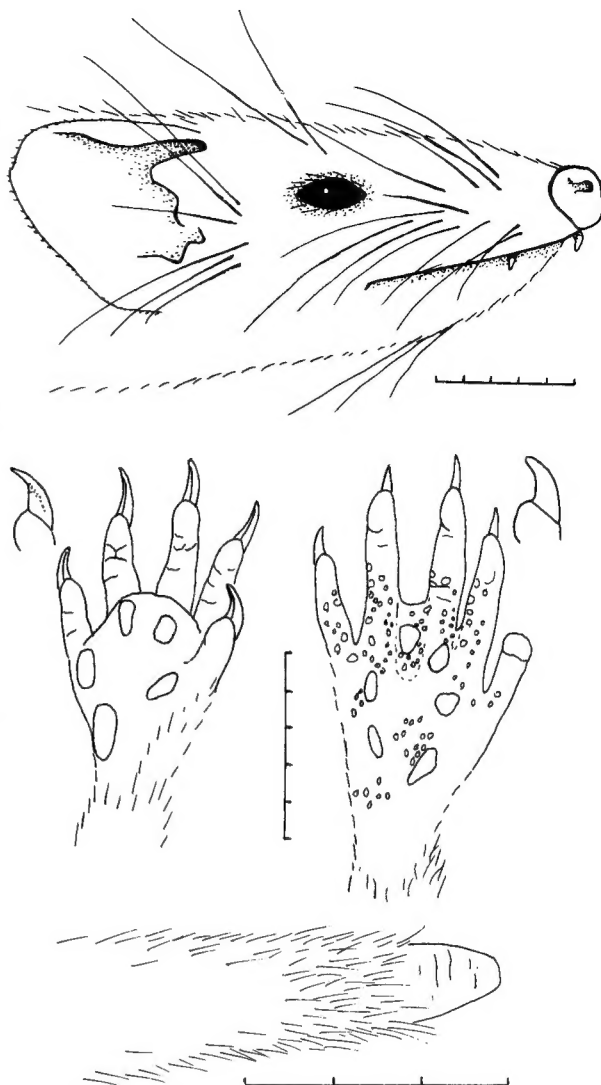


FIGURE 5. Drawings of *Monodelphis kunsii*, from ANSP no. 18191 but modified to reduce distortion evident in the dried study skin (probably good photographs of a living animal would differ slightly from these drawings). Marks on the scales represent millimeters. Head in side view to show ear, rhinarium, and vibrissae. Palm of right forefoot and side view of claw of digit three (at left) and palm of right hindfoot and side view of claw of digit three (at right). End of tail in ventral view to show hairless tip. Drawn by the author.

Whitish patches (quite different in size in the two known specimens, see Fig. 1) occur ventrally and the hairs there are entirely whitish to their bases. Skin and hairs on the eyelids are black. Molt from juvenal to adult pelage (in ANSP no. 18191, a young adult male) was proceeding from the median dorsal thoracic area outward. The genital area probably would have been the last to complete the outgrowth of new hair. There are mystacial, genal, supraorbital, and interramal seta of facial vibrissae, as shown in Figure 5.

The feet are shown also in Figure 5. There is a conspicuous basal web between digits 3 and 4 of the pes and a lesser web between digits 2 and 3. There are five large palmar pads and six plantar pads. The hindfeet have a number of small blackish pads as well. A smaller number of less pigmented small pads are present on the forefeet.

The end of the tail is unhaired (as shown in Fig. 5) and presumably has a tactile function. This condition occurs also in several other species of *Monodelphis* that were examined. Other members of the genus do not have abdominal pouches and, therefore, females of *M. kunsii* probably lack them. Nothing is known of function, ontogeny, or reproduction for the species.

**ECOLOGY.** The holotype was "apparently trapped alive in cut-over brush." The build, size, and dentition suggest a carnivorous (insectivorous?) diet and ecological similarities with the shrews (Soricidae) of the Holarctic Region. Nothing is known of the behavior or of the genetics of *M. kunsii*.

**REMARKS.** The genus *Monodelphis* needs systematic revision, a task that R. H. Pine has begun. The name *Monodelphis* is from the Greek words for "single womb" and the specific epithet *kunsii* honors Dr. Merle L. Kuns who obtained the type specimen. The partial skull of the second specimen was found at the American Museum of Natural History in 1980 and was reassociated with the skin at the Academy of Natural Sciences in Philadelphia where it had been since 1936.

No species of this interesting genus of short-tailed didelphids has been included in *Mammalian Species* until now. This account records the second known specimen of *Monodelphis kunsii*, extends its known range nearly to the border of Argentina, and adds to the meager knowledge of its anatomy.

I am grateful to Alfred Gardner for photographs of the type specimen.

#### LITERATURE CITED

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